

-7-

AMENDMENT TO THE DRAWINGS

Please add new FIGS. 7-1 and 8-1.

AMENDMENT TO THE SPECIFICATION

Following the paragraph beginning on page 13, line 3 and ending on page 13, line 16, please insert the following paragraph.

As previously described on page 6 of the specification, in previous practices, transducers 450 were formed on a wafer 452 as illustrated in FIG. 7-1. The wafer 452 is cut to form a cut surface 454 and the air bearing surfaces 456 IS contoured or formed on the cut surface 454 so that the thermal transducer 450 is formed along an edge of the slider as shown prior to cutting and fabrication of the air bearing surfaces 456. Thus as described in previous practices, the transducer is deposited at the wafer level prior to fabrication of the air bearing surface 456 and thereafter the wafer 452 is cut to form the air bearing surface 456 on a cut surface 454 so that the transducer 450 is formed along the edge of the slider.

Please replace the paragraph beginning on page 13, line 17 and ending on page 13, line 28 as follows.

The present invention relates to fabrication of the transducer on the contoured or air bearing surface. In the embodiment shown in FIG. 8, the air bearing surface or contoured surfaces 506 are fabricated at the wafer level or on the wafer and the thermal transducers 500 are also fabricated at the wafer level prior to slicing individual sliders as shown. Alternatively as shown in FIG. 8-1, air bearing surfaces 456-1 and transducers 450-1 are fabricated on a cut surface 454 of the wafer. Regardless of the particular embodiment for the placement and number of thermal transducers on the air bearing surface, the thermal transducers generally are formed on the air bearing surface following the contouring of the air bearing surface to form the gross shape of

the air bearing surface in contrast to fabrication processes as illustrated in FIG. 7-1 where transducers 450 are deposited on a surface of the wafer 452 prior to cutting and fabrication of the air bearing surfaces 456. The thermal transducers can be deposited using any of the vacuum metal deposition techniques, such as sputtering. Conductive strips and conduction pads can be similarly deposited. Generally, the components are covered with a protective, electrically insulating layer such as diamond like carbon.

Please replace the paragraph beginning on page 13, line 29 and ending on page 14, line 3.

In one embodiment, ~~The order of processing depends on the approach used to produce the slider from a wafer. In the convention approaches,~~ where the air bearing surface and transducer is formed from a cut edgesurface 454 of the wafer. ~~In these approaches,~~ the electrically conductive pads can be deposited on the surface of the wafer prior to the slicing of the wafer. The pads are positioned on the wafer surface such that they are along the rear edge of the slider after the sliders are cut from the wafer as shown in FIG 9..

Please replace the paragraph beginning on page 14, line 4 and ending on page 14, line 16 as follows.

Following fabrication of the pads, the wafer is cut and the ~~cutting of the individual sliders,~~ the air bearing surface or cut surface ~~generally~~ is subjected to one or more stages of lapping (e.g., rough lap, smooth lap and crown lap) to smooth the surface. Lapping generally involves mechanical, chemical and/or mechanical/chemical polishing. Following a desired amount of lapping, the air bearing surface is contoured using thin layer

deposition techniques, milling techniques such as ion milling, reactive ion milling or laser ablation, or a combination thereof. Following contouring, the thermal transducers and conductive strips are applied to the air bearing surface. A protective coating then can be applied, if desired.

Please replace the paragraph beginning on page 14, line 17 and ending on page 14 line 28 as follows.

As noted above, a preferred approach for the production of sliders with thermal transducers on the air bearing surface involves the cutting of forming air bearing surfaces of the sliders from at the wafers level such that the air bearing surface of the slider is formed from a surface of the wafer. Thus, a greater portion of the slider preparation is performed at the wafer level. In particular, the contouring of the air bearing surface and the placement of the thermal transducer is formed on the wafer prior to slicing the individual sliders as shown in FIG. 8. A portion of a wafer processed to produce sliders configured as shown in FIG. 2 is depicted in FIG. 8.